D C B W E B P A G E T E A M

Working Paper #9:

by J.D. McMinn

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Core Team

Tracy Jones
Dana McMinn
Marty Waszak

Support Team

Scott Dorsey
Bruce Jackson
Melissa Proffitt

DRAFT SITE IMPLEMENTATION PLAN

0. Where We Are

The DCB site as it exists now is, for the most part, out of date. Bibliographies and biographical sketches, with the exception of those few who have maintained their own material, are only current through 1994. One pagers and highlights are limited in number. The bottom line is that unless you have been providing material to the site savvy people (Marty, Bruce, or Scott) your work has not found its way onto the web. A lesson learned here is that everyone will have to contribute to the development of 'content' for the site to grow and accurately reflect and communicate the valuable research going on within DCB. This paper tries to outline a procedure for fleshing out the initial content / structure of the web site.

I. Desired Features

One of the first actions of the Web Team was to try to determine what we wanted/needed our site to do. This evolved into making lists of several types of features we thought necessary and ranking them in order of perceived importance. The ordered lists are given below along with a further classification of the features deemed critical, important, and desirable.

A. Functional Features

The functional features describe the way the site will work -- the mechanics of the site.

Critical

1. Quick navigation (get to what you want with minimum number of clicks)
2. Structured for easy maintenance
3. Searchable (search the entire site for key words and phrases)
4. Access to Research Products (models, codes, reports, etc.)
5. Customized Response via mailto links

Important

6. Site Map (graphical image of site)
7. Database features (searchable, sortable, custom reporting, etc.)
8. Automated User Stats
9. Automated Time Stamps (when pages are added or modified)
10. Voluntary user registration (to customize service)

Desirable

11. Interactive T&A logging
12. Interactive PO logging
13. Interactive Stock Orders
14. Interactive Property logging

B. Content Features

The content features describe the stuff that is contained in the site or linked to from the site.

Critical

1. Research Areas and Topics
2. Product Info (descriptions of DCB products)
3. Program involvement
4. "Controls 101" (introductory materials)
5. Core competencies (skills, experience, facilities, etc.)
6. Technical Highlights
7. Org charts

Important

8. Photo gallery (cool pictures, animation’s, movies, other eye candy)
9. Related links
10. Papers and Reports
11. Bibliographies
12. FAQ's
13. Revision Log (modifications and additions to the site content)
14. Biographies

Desirable

15. Glossary (description of jargon and obscure terms)
16. Upcoming activities (meetings, visits, presentations, briefings, etc.)

17. Personal References Catalogs
18. Visiting Researcher info (past and present)
19. White Papers and Proposals (limited access)
20. Forms
21. DCB Library Catalog

C. Aesthetic Features

The aesthetic features describe the way the site will look -- the attractiveness of the site.

Critical

1. Quick downloads
2. Short Pages (screen sized)
3. Splash screen
4. Ubiquitous navigation info
5. What's New @ DCB Features (periodically changing)

Important

6. Ubiquitous contact info (easy to find somebody to ask questions or send comments)
7. Icon Strip
8. Text Only Option
9. Outline/Navigation Bars
10. Icon/Graphic Bullets
11. Movies (Quicktime, etc.)

Desirable

12. Sound
13. Free Stuff
14. "Visitor Sensitive" navigation
15. Animation’s

Quick navigation and easy maintenance topped the Functional features rankings. Research area, product, and program description information were rated the highest among the Content Features. Under the category of Aesthetic features, quick downloads, short pages, and the use of a Splash screen were rated the highest.

II. Proposed Server

The members of the core team even after reviewing additional information were not comfortable with making a recommended server selection and so asked for support from a support team member. His recommendations shown below are supported by the members of the core team.

I was asked to generate a paragraph representing my recommendations for hardware/software solutions for a Branch server.

I've used an older NCSA server on our Sun cluster and an early version of Webstar on my own Mac. I have not kept up with those technologies recently since the HSR program has led me to use Netscape servers on UNIX, and more recently, NT systems due to the security features of Netscape Commerce/Enterprise servers.

I think the most expensive part of having a Branch server is the care and feeding of the content. This means we should use the platform for which that is easiest - probably Mac-based, or at least AppleShare compatible. I don't see any of our support staff learning UNIX and emacs any time soon.

The most complex component of our web site, I expect, will be the bibliography database. This would ideally take the form of an Excel spreadsheet that can be read by a script when a request is made for bibliographic info. At present (things change quickly) I think the only Excel-to-Web solution is using LiveObjects on an NT platform. [It is only a matter of time before the Mac solution to this emerges, however.] A work-around is a tool like Internet Assistant or XTML that will take spreadsheet data and generate .html files (we can write Excel macros to do this with the push of a button!).

The easiest path to take, I feel, would be a Mac-based server. The drawback is learning a scripting language such as Frontier, AppleScript, or MacPerl to do cgi-bin type server functions as we identify them.

This may be an expensive solution, however, since most new software runs on PowerPC platforms, of which we have little excess. However, the cost of maintaining the content thereon is the REAL cost of a web server, not the piddly purchase price.

Another solution would be to buy an NT platform, which brings with it AppleShare, FTP, and Web service (for a fee), along with the capability of tying things like Excel documents into Web servers. I'm not clear on what it takes to do this.

Use of a UNIX box as a server will require UNIX-trained content providers, of which we presently have 0.

Thus, my recommendation (may change tomorrow) is stick with Macs if you don't need high-powered secure commercial web service.

--Bruce

This recommendation reflects the opinion of the entire team and we have begun experimenting with a Mac based Webstar server. Visit this server at:

http://waszak.larc.nasa.gov/NewSite/DCBHome2.html

III. Proposed Site Layout

With the features defined and ranked the team set about defining the proposed layout of the site. The top-most page in the DCB site is a short 'Splash' page which introduces the site and welcomes visitors to explore the DCB site. This may seem like a wasted page since most visitors would likely stumble onto the site through a link from a search engine and possibly never visit the page, but it provides an obvious starting point for the DCB site; much like the title page of a book.

Immediately 'below' the Splash Page is the DCB Homepage. After discovering the site this page is most likely to be the bookmarked page. The Homepage presents the visitor with navigation information, a search capability, and access to all areas of the site. The left side of the page is dedicated to an outline bar and the center of the main page contains graphics and text describing the major research areas in the branch.

So, the fundamental concept for the site layout is having a simple Splash page with only one link into the DCB site. This link take the visitor to the homepage which offers the opportunity to explore the major research areas by clicking on large buttons which would lead down to one page descriptions of the research areas. The other option is to use an outline bar on the left side of the page to link to an area of interest. The thought is that the outline bar would always appear on the left side and on virtually every page in the site. Please visit the Splash page at:

http://agcbwww.larc.nasa.gov/OnePagers/mrw/WebTeam/NewSite/DCBSplashPage.html

IV. Existing Material

While the DCB web site is out of date, the material on the site is a good place to start to update the content. Looking at the proposed DCB homepage

(http://agcbwww.larc.nasa.gov/OnePagers/mrw/WebTeam/NewSite/DCBHome2.html)

one can see that the outline bar on the left side of the page is designed to provide quick access to other areas of the site. The existing site material falls mostly under the category of Organization.

The Staff button gives a list similar to the "People of DCB" on the old site. To bring this link up to date each DCB employee should be required to update his/her bio and bibliography. For those wishing to minimize their effort a template will be provided such that the only effort should involve writing the material and pasting it into the template. For those who prefer, they can use Netscape to view their own page and then under the View pull-down menu

select ‘Document Source.’ Saving and then editing this text will retain the style of your existing page. The HTML text file should then be forwarded to the web master for placement on the site. Those who wish may also invest time in developing their own page in a web page editor, such as Claris Homepage or Pagemill.

The Facilities, Org Charts, History, and Maps buttons should be developed by the branch office. Content exists for these links so only a little editing should be required.

Under the Products section of the outline bar the Papers/Reports link leads to existing material, albeit out of date. As part of updating their bio pages, all DCB members should be required to provide a verified bibliography.

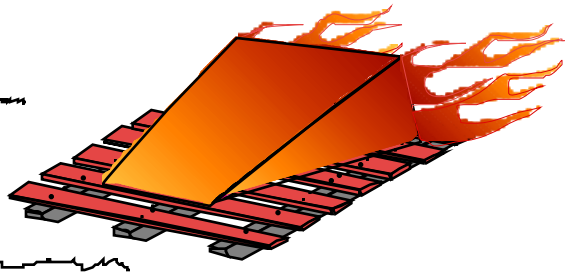
V. New Material

Again referring to the DCB Homepage, one can see that the page highlights the major research areas with graphics and a caption. These icons serve as the main pathways into the particular research areas. It is the responsibility of the Level III managers to develop one page ‘homepages’ for the area to be linked to these icons.

These pages should describe the research area, objective, and significance to the public. Upon reading this description the average, semi-technically literate reader should be able to understand, appreciate, and support the effort. See the example below.

SLED- X Program

Research area:

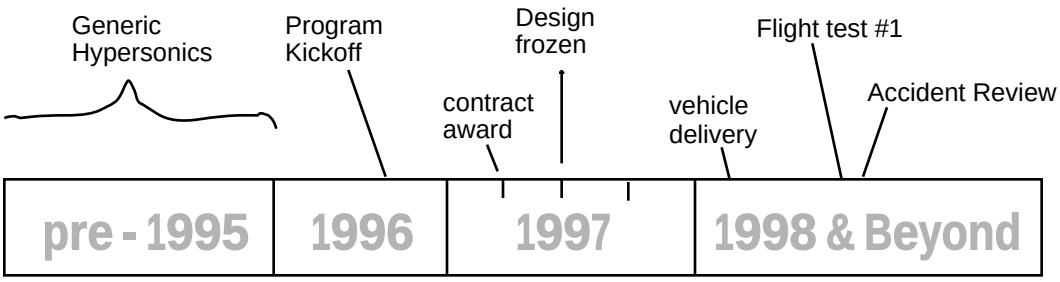


Objective:

Significance:

Links to information related to the SLED-X program

- History (including highlights from past years)
- Current highlights of the program
- Timeline of program
- Misc. stuff (models, tools, data…)



The Level III manager is responsible for technical review of the content linked to this page. In that role the Level III is to require those working below to provide content.

The following summarize the new content items and suggest the parties responsible for developing/maintaining that content.

A. Page Element: Research Area 'homepage'

Description: A one page description of the research program summarizing the research area, objective, and significance with a timeline of past, present, and future events displayed.

Responsible Party: Level III managers'

B. Page Element: **Introduction** (in the outline bar)

Description: This area links to educational material for all levels (grade-school through Ph. D.). From time to time members of the branch develop material that is (or with only minor work can be) suitable as an educational resource for other members of the branch, summer students, coops, etc. That material is linked here.

Responsible Party: The branch office is responsible for developing (or designating the development of) a suitable introduction to the areas of Controls, Dynamics, Modeling, and Simulation. As more material becomes available is should be added here. This has the potential to be a very useful collection. As cross-organization efforts are becoming more the norm, this area could be a valuable source of information explaining just what do in DCB.

C. Page Element: **Organization**

Description: This area links to material about the organization of DCB. Most of the elements exist on the new site and/or are self explanatory.

Responsible Party: The branch office is responsible for developing (or designating the development of) the elements herein.

D. Page Element: **Research Activities**.

Description: We already have a paragraph on the Mission in the old site. The Research Areas link goes to a page summarizing the areas (perhaps just restating, on one page, the Research area, Objective, and Significance from the Research area homepages). The Programs link takes the reader to a page describing the program that the branch is involved in (not so specific as the Research Areas link). The Technical highlights are a page of links to the various highlights among the research areas. It might be useful to allow the

reader to cull through the list, by searching on keywords, authors, or other descriptors.

Responsible Party: This section of the outline bar should be developed and maintained by the web master with support from the branch office.

E. Page Element: **Products**

Description: This section of the bar links to items that DCB has developed. The Papers/Reports is similar to the branch bibliography on the current site. The algorithms, models and tools are links to pages listing those items available.

Responsible Party: The development of this type of content is the responsibility of the individuals, with prodding by the Level III's and branch management. This section should also be managed by the web master.

F. Page Element: **Opportunities**

Description: Located in this section are items relating to obtaining a relationship with DCB. The Sponsored Research link takes the reader to a page describing the type of, and procedure for submitting, grants to the branch. The Cooperative Education link should advertise the coop program. To that end it could describe past coops, their contribution, their comments about the experience etc. The Fellowships and Employment links should describe the positions DCB has available and the procedure for getting more information.

Responsible Party: All these links should be maintained by the branch office, although the Coop link information would primarily come from the coop's mentor and the coop student.

G. Page Element: **Cool Stuff**

Description: This section contains links to photos, graphics, videos, animation's, demos and material that has general appeal. Besides being a resource for those members of the public looking for pictures of the latest research aircraft, this location could be a resource for the branch. Often when preparing for presentations we have a need for an image of an aircraft, a runway, the globe, the VMS, etc... This could be a repository for such material.

Responsible Party: This section should be managed by the web master.

H. Page Element: **FAQ's**

Description: Since it will be required that all web pages have a point of contact (through an email link at the bottom of the page) it is likely that we will be asked questions about our site or what we do. As we respond, we should also post the question and answer on a Frequently Asked Questions (**FAQ**) page.

Responsible Party: It is the responsibility of each researcher to respond to questions regarding their pages. If the question (and answer) has general appeal, the researcher should forward the question and answer to the web master for inclusion on the FAQ list.

I. Page Element: **Related Links**

Description: As we find web sites at organizations doing work similar to what we do we should mutually post links to each others sites on the **Related Links** page.

Responsible Party: It is the responsibility of each researcher to forward the Related Links to the web master for inclusion on the Related Links list. This list should be reviewed periodically for editing.

J. Page Element: **Site Map**

Description: After the new web site stabilizes in its form, we should post a visual image of the site. This **Site Map** would help orient any visitors and act as a one page visual layout of the DCB site as perceived by visitors exploring by following links.

Responsible Party: Web master.

K. Page Element: **Index, Search Engine, Glossary**

Description: In the process of setting up a **Search Engine** it should be possible to generate a hypertext **Index** and **Glossary** of the DCB site.

Responsible Party: These features, available on the outline bar should be maintained by the web master.

This concludes the discussion of the proposed layout of the site. We believe this layout and structure provides a framework for growth and meets most of the desired features enumerated in section I.

VI. Next Steps

The members of the team feel that these working papers provide enough direction to the branch members and management begin full-scale work on the

DCB web site. Before this can begin, however, the branch members must provide constructive feedback regarding these working papers. In addition to responding to the feedback, the team will conclude its work by addressing the action items identified at:

http://agcbwww.larc.nasa.gov/OnePagers/mrw/WebTeam/Documents/ActionPlan.pdf

Finally, the team believes that an Implementation Team should be formed to carry forward the construction of the site.